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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,747	08/08/2006	Alastair Robert Buckley	BHJ14USA	4270
270 7590 01/08/2008 HOWSON AND HOWSON SUITE 210 501 OFFICE CENTER DRIVE FT WASHINGTON, PA 19034			EXAMINER CHEN, BRET P	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 01/08/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/551,747	Applicant(s) BUCKLEY, ALASTAIR ROBERT	
	Examiner B. Chen	Art Unit 1792	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/26/07.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5,6,8-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6,8-10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1, 3, 5-6, 8-10, 12 are pending in this application. Amended claims 1, 3, 5-6 and canceled claims 2, 11 are noted.

The amendment dated 10/26/07 has been entered and carefully considered. The examiner appreciates the amendments to the specification and claims. In view of said amendment, the objection to the abstract and title, the 112 rejection, and the previous 103 rejection has been withdrawn.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 1, 3, 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uetsuki et al. (3,892,490).** Uetsuki discloses a monitoring system for depositing a multi-layered coating on a substrate such as an optical lens (col.1 lines 6-9) wherein a beam of energy is directed to contact the coating material on the substrate (col.3 lines 9-15). Specifically, a vacuum coating apparatus 2 for depositing layers comprises a vacuum chamber or bell jar 4 sealed to a base plate 6 which contains a conical substrate holder 8 located across from an evaporative material source 16 (col.4 lines 1-18 and Figure 1). In one embodiment, the evaporative material can be mounted on a revolving material holder 14 and exposed to an electron beam through a shield member 18, in which the electron beam can be generated from a number of conventional sources such as an electron emitting filament 20 which is aimed or

directed towards the source 16 of the appropriate coating material by an electro-magnet 22 (col.4 lines 19-30). However, the reference fails to specifically teach a container.

It is noted that Uetsuki specifically teaches the use of revolving material holder 14. One skilled after reading Uetsuki would realize that using a container for the material holder would allow for more material and thus lead to a more efficient process. It would have been obvious to utilize a container with the expectation of obtaining a more efficient process.

The limitation of claim 2 has been addressed above.

In apparatus claim 5, the applicant requires an electron gun. Uetsuki teaches the conventionality of using an electron gun to produce an electron beam (col.2 lines 35-37). It would have been obvious to utilize an electron gun in Uetsuki's apparatus with the expectation of obtaining similar results.

The limitation of claim 6 has been addressed above.

**Claims 8-10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uetsuki et al. (3,892,490) in view of Bois (4,303,694) or Nath (4,514,437).** Uetsuki discloses a monitoring system for depositing a multi-layered coating on a substrate such as an optical lens wherein a beam of energy is directed to contact the coating material on the substrate as noted above. However, the reference fails to teach an additional heat source.

Bois discloses a method for depositing material on the substrates by vacuum evaporation in a target is bombarded by means of an electron beam (abstract) in which heating of crucibles can be done by Joule effect or by high frequency (col.1 lines 16-20).

Nath discloses a method of depositing thin films onto substrate by using an electron beam to vaporize a solid source (col.6 line 5 – col.7 line 11). In one embodiment, multiple electron beams can be utilized (col.10 lines 20-50).


It is noted that Bois and Nath teach the conventionality of heating a crucible by an additional heating source other than an electron beam. It would have been obvious to utilize an additional heating source in Uetsuki's process with the expectation of success given the teaching of Bois and Nath which teach the conventionality of using multiple heating sources.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Chen whose telephone number is (571) 272-1417. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bc  
1/6/08

  
BRET CHEN  
PRIMARY EXAMINER